REMARKS

The Examiner rejected claims 1-29 under 35 U.S.C. §102(b) as allegedly being anticipated by AAPR (Applicants' Admitted Prior Art eg, figure 22 etc., herein after AAPR).

Applicants respectfully traverse the § 102 rejections with the following arguments.

35 U.S.C. §102

The Examiner rejected claims 1-29 under 35 U.S.C. §102(b) as allegedly being anticipated by APPR (Applicants' Admitted Prior Art eg, figure 22 etc., herein after AAPR).

Applicants respectfully contend that AAPR does not anticipate claim 1, because AAPR does not teach each and every feature of claim 1, as will next be explained. To help explain Applicants' arguments, Applicants have included Appendix A herein. Appendix A includes FIG. 22 with the addition of reference numerals 31-36. Reference numerals 31-36 do not exist in the originally filed patent application.

Claim 1 recites "forming a capacitor having a lip extending over a top surface of a substrate". In FIG. 22 of Appendix A, the Examiner appears to be arguing that the lip 34 is above the top surface 31 of the substrate 10. The Examiner cannot be referring to surface 32 as the top surface of the substrate 10, because the surface 32 is above the lip 34 in violation of claim 1.

Claim 1 also recites "diffusing dopant from the lip into the top surface of the substrate, the diffusing dopant forming a surface strap in the substrate, the surface strap providing a connection between the capacitor and the transfer device." FIG. 22 of Appendix A shows three potential paths of dopant from the capacitor 24 to the surface trap 11, namely paths 33, 35, and 36. Path 33 satisfies the requirement of diffusing dopant from the lip 34 to the surface trap 11, but does not satisfy the requirement of diffusing dopant from the lip into the top surface 31 of the substrate 10. Path 35 does not satisfy the requirement of transferring dopant from the lip 34 to the surface trap 11, and is probably not a viable path because the dopant path would be cut off by the isolating collar 28. Additionally, path 35 does not cross the top surface 10 as required by claim 1. Path36 does not satisfy the requirement of transferring dopant from the lip 34 to the surface trap 11, and

is probably not a viable path because the dopant path would be cut off by the buried n+ plate 25.

Additionally, the description of FIG. 22 on page 3, line 137- page 4, line 12 does not identify a dopant path that supports the Examiner's interpretation of claim 1. The description of FIG. 22 states: "The cell is then annealed, causing n^+ dopant to diffuse from the polysilicon electrode 24 and into the adjacent substrate, forming buried strap 11", which does not identify a specific dopant path that supports the Examiner's interpretation of claim 1.

Based on the preceding arguments, Applicants respectfully maintain that AAPR does not anticipate claim 1, and that claim 1 is in condition for allowance. Since claims 2-16 depend from claim 1, Applicants contend that claims 2-16 are likewise in condition for allowance.

As to claims 12-29, the Examiner has not provided any argument in support of the rejection of claims 12-29. Therefore, Applicants respectfully contend that the rejection of claims 12-29 is per se improper. Nonetheless, Applicants maintain that claim 17 is not anticipated by the AAPR for the same reasons presented *supra* in conjunction with claim 1; i.e., see the following features of claim 17:

> "e) depositing capacitor fill material in said capacitor trench, said capacitor fill material extending over said capacitor trench top edge to form a lip of capacitor fill material on said top surface of said semiconductor substrate; and
>
> f) diffusing dopants from said capacitor fill material into said semiconductor substrate from said lip of capacitor fill material, the diffusing dopant forming a surface strap in the substrate, the surface strap providing a connection between the capacitor and the transfer device."

Accordingly, Applicants respectfully maintain that AAPR does not anticipate claim 17, and that claim 17 is in condition for allowance. Since claims 18-29 depend from claim 17,

Applicants contend that claims 18-29 are likewise in condition for allowance.

CONCLUSION

Based on the preceding arguments, Applicants respectfully believe that all pending claims and the entire application meet the acceptance criteria for allowance and therefore request favorable action. If the Examiner believes that anything further would be helpful to place the application in better condition for allowance, Applicants invites the Examiner to contact Applicants' representative at the telephone number listed below.

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Appendix A

FIG. 22
Prior Art